

IN FOCUS

Cyclones Giovanna and Irina make thousands of people homeless

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Each year, an average of three to four strong tropical storms formed in the Indian Ocean hit Madagascar. In the night from 13 to 14 February 2012, Cyclone Giovanna landed on the eastern coast of the island, moved inland and crossed the country from the east to the south-west, bringing strong winds, high waves, heavy rains and flooding. The eastern districts were the most affected. Two weeks later, on the 26 of February, another tropical storm, Irina, hit the island. The two disasters caused 112 deaths, injured 299 people and left three people presumed lost¹. According to the National Office of Risk and Disaster Management (BNGRC), an estimated 60,000 houses, in addition to schools, health centres and vital infrastructure, were destroyed, damaged or flooded². The BNGRC, supported by non-governmental organizations (NGOs), quickly organized humanitarian assistance to provide people drinking water, food stoves and/or sanitation products. Efforts were also made to rebuild the damaged infrastructure (roads, bridges, telecommunication installations, schools, houses).

Temporary migration: how far, how long?

Overall, the two storms displaced about 55,000 people,³ mostly temporarily and close to their homes. Most of them chose to move just before the cyclone: they took shelter in neighbors' solid houses or evacuated to more resistant structures, such as schools or churches⁴. Their return usually occurred after a couple of days, and they often rebuilt their huts at the same place as before. Yet, as Giovanna and Irina mainly hit isolated and landlocked villages, where many people did not receive the alert messages broadcasted on the radio stations or the warning campaign, a majority of the people did not evacuate.

In the following months, because Giovanna and Irina flooded private food reserves and destroyed more than half of the crops, food prices rose in several places. It is doubtful however that this growing food insecurity induced further migration across the region⁵.

Long-term challenges - Reducing Vulnerabilities

Madagascar's current political crisis has complicated the national response to natural disasters. Since 2009 and the deposition of the elected President Marc Ravalomanana by President Andry Rajoelina, great troubles have shackled the country. Today, emergency assistance is mainly provided by international institutions or NGOs and Malagasy rulers have become dependent on foreign donors to finance any action. After Giovanna and Irina, most of the outside funding has been used for rebuilding, rather than disaster risk reduction. Yet, risk could be minimized.

The government has to invest to *improve the early warning system* by using new telecommunication means – especially phone messages. This system is efficient; however, it is difficult to apply in the rural areas, where people don't necessarily have mobile phones and a functioning network.

As traditional huts are mainly composed of wood, reeds, bamboo and palm leaves that hardly withstand storms, community leaders should encourage people to build durable structures with baked stones or concrete. Currently, they are also trying out *new ways of constructing*, particularly using crossing houses frame, an anti-storm architectural style inspired by the anti-earthquake Japanese constructions, in order to make the buildings more flexible and resistant to shocks and strong winds⁶.

Local leaders need to develop collective food reserves, raised or sheltered in safe places, in order to prevent them from being flooded and to ensure food security notwithstanding environmental disruptions.

As a global issue, the national government has to keep on *fighting deforestation* to make trees serve as buffers to slow winds and prevent floods by increasing soil's absorption capacity⁷.

In any case, it is essential to include the people, so that they behave in a way that best reduces their vulnerability⁸.

1. Data from the National Office of Risk and Disaster Management (BNGRC) – From an email interview with Katia Rakotobe from CARE Madagascar, in mission in Antananarivo, 16 - 17 April, 2013.

2. National Office of Risk and Disaster Management (BNGRC), Executive Secretariat and Malagasy Home Office : "Bilan provisoire des dégâts suite au passage du cyclone tropical intense "Giovanna"", 14 March 2012, http://www.bngrc.mg/documents/giovanna/SITU%20Giovanna%2014_03-15h.pdf

3. Data from the National Office of Risk and Disaster Management (BNGRC) – From an email interview with Katia Rakotobe from CARE Madagascar, in mission in Antananarivo, 16 - 17 April, 2013.

4. Email interview with Thierry Razanakoto, National Consultant and Research Assistant, IOM (Madagascar), 17 - 18 April, 2013.

5. Interview with Emmanuel Lan Chun Yang, Responsible for emergency

actions in CARE France and Responsible for an assessment on the CARE projects in Madagascar after the passage on Giovanna on site, 16 April, 2013.

6. Interview with Emmanuel Lan Chun Yang, Responsible for emergency actions in CARE France and Responsible for an assessment on the CARE projects in Madagascar after the passage on Giovanna on site, 16 April, 2013.

7. Interview with Emmanuel Lan Chun Yang, Responsible for emergency actions in CARE France and Responsible for an assessment on the CARE projects in Madagascar after the passage on Giovanna on site, 16 April, 2013.

8. "Cyclone Giovanna struck with little warning", IRIN, 20 February, 2012, Brickaville <http://www.irinnews.org/report/94911/madagascar-cyclone-giovanna-struck-with-little-warning>